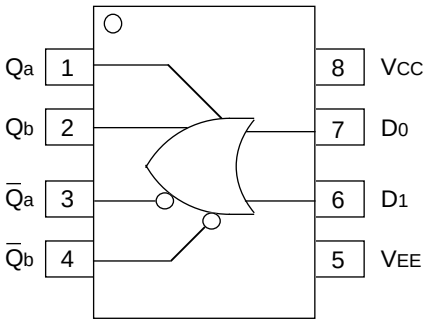
FEATURES

- **290ps propagation delay**
- **Dual outputs for 25Ω drive applications**
- **Internal 75KΩ input pull-down resistors**
- **Available in 8-pin SOIC package**

DESCRIPTION

The SY10/100EL12 are low-impedance drive buffers. With two pairs of OR/NOR outputs, the devices are ideally suited for high drive applications such as memory addressing. These devices are functionally equivalent to the E112 devices, with higher performance capabilities. With propagation delays significantly faster than the E112, the EL12 is ideally suited for those applications which require the ultimate in AC performance.

PIN CONFIGURATION/BLOCK DIAGRAM



SOIC
TOP VIEW

PIN NAMES

Pin	Function
D_0, D_1	Data Inputs
Q_a, Q_b	Data Outputs

DC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

Symbol	Parameter	T_A = –40°C			T_A = 0°C			T_A = +25°C			T_A = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I_{EE}	Power Supply Current													mA
	10EL	—	14	17	11	14	17	11	14	17	11	14	17	
	100EL	—	14	17	11	14	17	11	14	17	13	16	20	
V_{EE}	Power Supply Voltage													V
	10EL	–4.75	–5.2	–5.5	–4.75	–5.2	–5.5	–4.75	–5.2	–5.5	–4.75	–5.2	–5.5	
	100EL	–4.20	–4.5	–5.5	–4.20	–4.5	–5.5	–4.20	–4.5	–5.5	–4.20	–4.5	–5.5	
I_{IH}	Input HIGH Current	—	—	150	—	—	150	—	—	150	—	—	150	µA

AC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

Symbol	Parameter	T_A = –40°C			T_A = 0°C			T_A = +25°C			T_A = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
t_{PLH} t_{PHL}	Propagation Delay to Output D	120	280	500	170	280	450	180	290	450	210	320	480	ps
t_r t_f	Output Rise/Fall Times Q (20% to 80%)	150	350	550	150	350	550	150	350	550	150	350	550	ps

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range	Package Marking
SY10EL12VZC	Z8-1	Commercial	HEL12
SY10EL12VZCTR*	Z8-1	Commercial	HEL12
SY100EL12VZC	Z8-1	Commercial	XEL12
SY100EL12VZCTR*	Z8-1	Commercial	XEL12

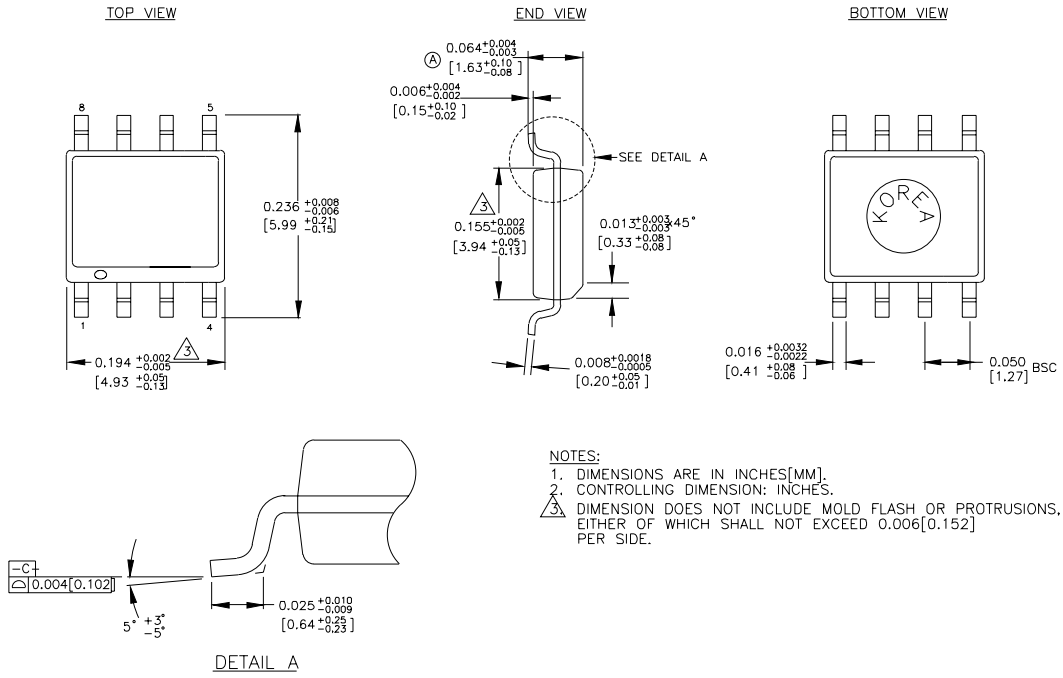
* Tape and Reel

Ordering Code	Package Type	Operating Range	Package Marking
SY10EL12VZI(1)	Z8-1	Industrial	HEL12
SY10EL12VZITR*(1)	Z8-1	Industrial	HEL12
SY100EL12VZI(1)	Z8-1	Industrial	XEL12
SY100EL12VZITR*(1)	Z8-1	Industrial	XEL12

* Tape and Reel

Note 1. Recommended for new designs.

8 LEAD SOIC .150" WIDE (Z8-1)



NOTES:
1. DIMENSIONS ARE IN INCHES[MM].
2. CONTROLLING DIMENSION: INCHES.
3. DIMENSION DOES NOT INCLUDE MOLD FLASH OR PROTRUSIONS, EITHER OF WHICH SHALL NOT EXCEED 0.006[0.152] PER SIDE.

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